

CENTRAL INTELLIGENCE AGENCY

SUBJECT **Latvian Telephone System**

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1. The Latvian telephone system was owned and operated by the Latvian Government through the Ministry of Communications. The Ministry was made up of departments which included telephone, telegraph, post office, railroads, radio, etc, covering all methods of communications. In 1940 the telephone, telegraph and radio departments in Riga had about five thousand employees; 12 thousand in all of Latvia. The personnel was of a high caliber. Equipment was modern, adequate and was well maintained.
2. The main telephone central office was located at Audeju Iela #15 (Audeju Street #15) between Rīdzenes Iela and Maza Kāleju Iela in Riga. The building was constructed of reinforced concrete and was five stories high. It measured about 40 meters by 25 meters. The foundation was from 10 to 15 meters deep and was made up of pilings measuring between 30 and 40 cm in diameter and spaced about 1.35 meters apart. Over the foundation was a reinforced concrete base about four meters thick. The roof was of different levels, topped by a round, reinforced concrete observation post. The front slope of the roof, facing Audeju Iela, was made up of wooden beams covered with zinc plate while the back was partly glass skylight and the rest sheet steel 20 mm thick. Sketch #1 [redacted] of the building on Audeju Iela. From this sketch it can be seen how the main cable shaft entered the building from Audeju Iela. There were between two hundred and 250 telephone cables at this point. [redacted] 50 alarm cables (military) and radio cables on this sketch. All cables were underground in the downtown Riga area. The sketch #2 [redacted] profile of the telephone building itself. It is self explanatory and shows the complete construction. Sketches #3 through #10 show the cellar, the five floors and the roof. In the basement (Sketch #3) [redacted] 50 the main cable shaft location, engine room, transformers and shop. The numbers 1 through 8 that are shown are the locations of the supporting pillars. On the first floor (Sketch #4) were the offices for regular connections (local), a trunk call board and long distance call board. Also shown are the pay office, public booths, warehouses and guard room. On the second floor (Sketch #5) were a work shop, administrative offices, military switchboard for ordinary calls and a secret switchboard for military centrals. The third floor (Sketch #6) accommodated the engineers, the commutators and the telephone searcher (finding) equipment for District #1. The fifth floor (Sketch #8) was used as living quarters by the Director. Sketches #9 and #10 show the roof layout.

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3. There were 12 telephone centrals in Riga located as follows and each with the number of engineers shown:

District I	Main Central Office at Audeju Iela #15	12 engineers
District II	Krisjan Barons and Matiss Iela	5 engineers
District III	Barinu Iela (post office)	2 engineers
District IV	Dzirnavu and Hanzas Iela (post office)	1 engineer
District V	Brivibas Gate (post office)	1 engineer
District VI	Meza Parks Koknes Prospekta (post office)	2 engineers
District VII	Sarkandaugava-Dantes Iela and Tiltu Iela	1 engineer
District VIII	Vecmilgravi-Vecmilgravu Iela (post office)	1 engineer
District IX	Ilgeciem-Lilijas Iela (post office)	1 engineer
District X	Bolderaja (post office)	1 engineer
District XI	Majori-Rigas Jurmala (post office)	1 engineer
District XII	Kemeru-Rigas Jurmala (sanatorium)	1 engineer

4. Following were the main government and private switchboards:

- (1) Pils Castle-Ministry of Defense
- (2) Ministry Kabinets un Arlietu Ministrija - Cabinet Ministry and Ministry for Foreign Affairs - located on Valdemara Iela near the officers club.
- (3) Iekšlietu Ministrija - Ministry of Home Affairs - located on Brivibas Iela #37/39.
- (4) Kara Ministrija - War Office - Valdemara Iela #10/12
- (5) Zemkopības Ministrija - Ministry of Agriculture - located on the corner of Kalpaka Bulvari and Reimeru Iela.
- (6) Finanšu Ministrija - Ministry of Finance - located on Valdemaras Iela.
- (7) Latvijas Banka - The National Bank - located on Valdemaras Iela and Pils Laukums Azpazijas Bulvari.
- (8) Tiesli Ministrija un Senats - Ministry of Courts and Senate - located on Elizabetes Iela and Brivibas Bulvari.
- (9) Satiksmes Ministrija - Ministry of Communications - located in the Railway Administration Building on Gogula Iela.
- (10) Valsts Kontrolis - General Accounting Office - located on the corner of Valdemaras Iela and Aizsargu Iela.
- (11) Pilsetas Valde - City Hall - located at #5 Keninu Iela.
- (12) Prefektūra - Prefecture - located at the main Post Office on Azpazijas Bulvari. This was destroyed in 1945.
- (13) Aprinka Prieksnieks - District Department - located on the corner of Skolas Iela and Stabu Iela.
- (14) Rigas Mitrnica - Customs Department - Valdemaras Iela Pie Daugavas.
- (15) Valsts Zemes Banka - State Agricultural Bank - located on the corner of Valdemaras Iela and Citadeles Iela.
- (16) Universitate - University - located between Kalpaka Bulvari and Raina Bulvari.
- (17) Nacionāla Opera - National Opera - located on Azpazijas Bulvari and Teatra Iela, a city building under the Riga Department of Culture.
- (18) Nacionālais Teātris - National Theatre - located on Valdemaras Iela and Zigfrīd-Melrovijs Bulvari, a city building under the Riga Department of Culture.
- (19) Romas Viesnīca - Hotel de Rome - located on Azpazijas Bulvari and Teatra Iela. Destroyed in 1945.
- (20) I Pilsetas Slimnīca - 1st Town Hospital - located on the corner of Valdemara Iela and Aizsargu Iela.
- (21) II Pilsetas Slimnīca - 2nd Town Hospital - located on Zasulauka and Meza Nometņu Iela.
- (22) Kara Slimnīca - Military Hospital - located on Hospital Iela Pie Meza-Parks.

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- (23) Rigas Pilsetas Uzņēmumu Nodale - Rigas Pilsetas Valdes Zigmund-Meirovica Bulvarī #10 - City Hall - for Electrical, Water, Gas, Engineering and Architects Offices.
- (24) Kara Aprūne Priekšnieks - District War Office - located at Valdemars Iela and Pils Laukums on the Daugava River.
- (25) Jurnieciņas - Departaments - Citadelle - Navigation Department - located at Valdemars Iela and Pils Laukums, opposite the National Bank.
- (26) Labklājības Ministrija - Ministry of Welfare - located on Skolas Iela and Stabu Iela.
- (27) Kara Fabrika Latvijas Valsts - Military Arsenal - Zaslauka at II Town Hospital.
- (28) Bernu Slimnīca Jelgavas Soseja - Childrens' Hospital.
- (29) Fabrika "Vairoks" - Mechanical Factory - located at Brīvības Gatve at Bērnieku Iela.
- (30) Fabrika "Vertis" - The Verts Factory - located on Brīvības Gatve at Bērnieku Iela.
- (31) Gumijas Fabrika "Kvadrats" - Kvadrats Rubber Fabrication Factory - located at Latgales Jēb Maskavas Iela Pie Kenguraga.
- (32) Rigas Pilsetas Gāzes Fabrika - Riga Gas Factory - located at Valmieras Iela Pie Wagonu Iela.
- (33) Rigas Pilsetas Galvenā ūdens Piegāde Balt-Ezerā Fabrika Stacija - Riga Water Department - located at Zigmund-Meirovica Bulvarī #10.
- (34) Centrālā Cietums - Central Prison - located at the Matīsa Church Graveyard.
- (35) Interim Prison No 2 for Women and Men - located at the Military Hospital.
- (36) Tram Depot on Brīvības Iela across from main churchyard - City Engineering Department of Communication - all city motor vehicles garaged here.
- (37) Ilgciema Stikla Fabrika - Glass Factory - located in Ilgciem at Daugavgrīvas Iela near airdrome.
- (38) Ilgciema Cement Fabrika - Cement Factory - located in Ilgciem near the airdrome and the Daugava River.
- (39) Rīga Railway Station - NKVD Telephone Center - located on the second floor of the station.
- (40) Jessen Porcelāna Fabrika - Jessen Porcelain Factory - located in Milgravi Metalu - not far from the railroad station.
- (41) Oelrich Eļļa Fabrika - Oil refinery - located in Milgravi on the Daugava River near the railroad station.
- (42) Manufaktūras Fabrika - Feldhūn Manufacturing Company - located at Zaslauka at the Nordiki Railway Station.
- (43) Armijas Ekonomiskais Veikals - Military Economics Office - located on the corner of Valsts Iela and Audeju Iela across from the main telephone central.
- (44) Provdnīk Fabrika - Gumijas Izstrādājums - Provdnīk Rubber Factory - located at the bridge over Sarkandaugava at Tiltas Iela.
- (45) Parlaments - Parliament - located at Jekaba Iela Pie Jekaba Baznīcas (Jekaba Church)
- (46) Zaslaukas Manufaktūra Fabrika - Zaslaukas Manufacturing Company - located at the Zaslauka Railway Station.
- (47) Motocikla Fabrika "Erenpreis" - the Erenpreis Motorcycle Factory - located on Brīvības Iela at the viaduct near the tram-depot.
- (48) Mangaisala Cietums - Military only. Twelve military lines, partly underground, partly aerial.
- (49) Citadel - military only - located across the river from Mangaisala.
- (50) Shipbuilding plant at Milgravis
- (51) Military area (tank and armoured division) south of airdrome.
- (52) Kidzīn Sala - State radio station

5. The Latvian telephone net was very good, all communities of importance and all post office and railroad station towns having telephone service. The estimated technical capacity of central offices was five hundred thousand telephones. However, there were only two hundred thousand subscribers (approximately) up to 1944. All who wanted service could be accommodated.

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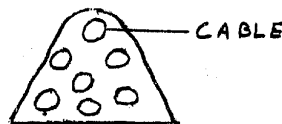
6. The telephone system employed excellent engineers and technicians. The central city of Riga was divided into six main telephone districts plus the suburban districts. Each main district had about 60 permanent technicians. During the summer months (when most of the maintenance and repair work took place) this number was raised to three hundred for each district. Starting in April of each year, work got underway on installing new lines, replacing needed poles, checking all cables, checking and making necessary changes on all switchboards, digging new tunnels and installing new underground cables. All main repair jobs were planned ahead in order to provide the necessary time needed for requisitions of material to be filled. This material was both domestic and foreign. All requisitions had to be channeled through the Ministry of Communications during the winter months. A deadline was always set for delivery.

7. The equipment was adequate and of good quality. Foreign equipment came from AEG and Schukert companies in Germany

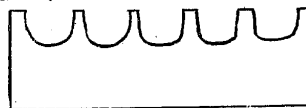
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The Latvian manufacturing plant VEF /Valsts Electrotehniska Fabrika - VEF/ in Riga supplied equipment on order. In 1935 the government started a plan to replace all equipment possible with that made by VEF. Most switchboards and telephone sets were replaced by VEF equipment except for some in private concerns. VEF also made much of the cable used although those of a size 200 X 2 and larger were imported from Czechoslovakia for it was found that the Czech cable was best for underground installation. 500 X 2 was the largest size cable used. Whenever foreign equipment was purchased, foreign technicians were invited to supervise the installation.

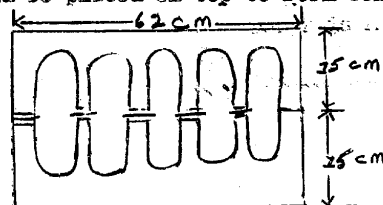
8. The main, underground cables had from one thousand to two thousand separate telephone wires. Each wire was rubber insulated and was colored red, white or blue for identification. The whole cable was encased in lead about five mm thick. Originally the cables were encased in concrete sections as follows:



This style was abandoned and the following method of installation was adopted. Concrete forms one meter in length and 62 cm wide were made to accommodate five cables in such a fashion:



A similar section would be placed on top to form conduits



If more than five cables were to be laid these sections would be placed on top of one another.

9. I have drawn a sketch (Sketch #11) of a street profile showing the telephone cables as well as electric power cables, one on each side of the street, a system adhered to throughout the city. This particular sketch (#11) shows the man holes of each type of cable-canal.

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10. Sketch #12 is a street corner profile which shows a typical 5, 10 and 15 cable installation. As can be seen, the concrete, sectional canals are laid 85 cm under the pavement. Sketch #13 reflects the cable system of the city of Riga as it existed in 1944. Solid green lines indicate underground cable, the broken green lines the aerial cables. In Sketch #14 I have shown the cable system at the corner of Piesstatnes and Tvaiku Ielas where it leads off to the west to the radio station at Kundzin Sala and the fashion in which it is laid under the river. After Kundzin Sala cut off, the cable continues on to District VIII of Vecmilgravi where it becomes aerial rather than underground. In Sketch #15 are shown the Cable Posts I and II from which the telephone wires lead off aerially to the subscriber.
11. Telephone poles used were usually pine impregnated with creosote. They measured 12 meters above ground and $2\frac{1}{2}$ meters underground, with the underground portion charred to prevent rot. The tops of the poles were capped with tin. Poles were spaced about 20 meters apart. The number of cross arms depended upon the number of wires. The wires were spaced about 15 cm apart and were fastened on domestic porcelain insulators of the screw type. Cross arms were bolted to the pole and supported by a $\frac{1}{4}$ -inch steel band. Wooden braces supported the pole on the leeward side or else they were anchored by a cable. Splices were covered by aluminum cartridges or sleeves. Individual wires were bare. Where the poles carried cable, the cable was insulated with aluminum or some light metal and covered with a tar treated fabric. Distribution boxes were installed on poles where necessary. Telephone poles did not share space with any other service and were for telephone wires only. In Sketch #16 I have shown the method of lead off from street canalization to subscriber.

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